

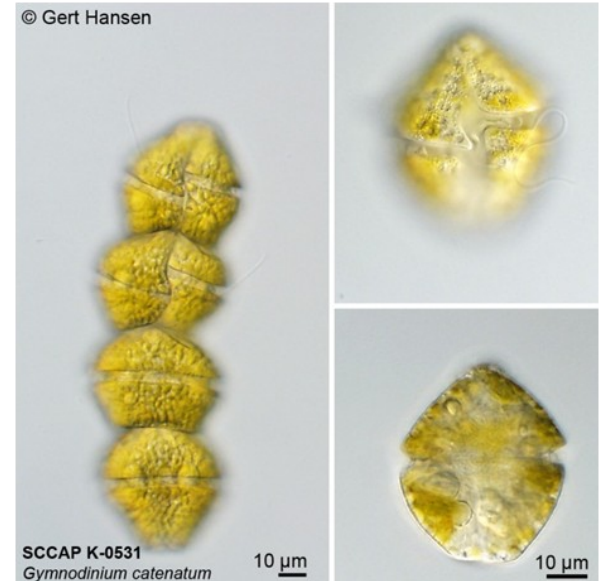


Gymnodinium catenatum

Toxic, Chain-forming, Estuarine, or Naked Dinoflagellate

Threat scores

1. Ecological impact
 - G. catenatum is the only known unarmoured dinoflagellate that produces toxins responsible for PSP (Paralytic Shellfish Poisoning)
 - Causes economic losses to fisheries; risk to human health
2. Invasive potential
 - A nektonic species (capable of independently moving about the water column and currents)
 - Additionally transported by ignorant possession through aquaculture, fisheries activities, ballast water
3. Geographic extent
 - Pervasive when it blooms
 - Regionally pervasive
4. Management Difficulty
 - No means of eradication in marine environment
 - Control options to prevent fouling of hulls and aquaculture equipment include electrical barriers/shock, salinity changes, heated water treatments, copper compounds, hydrogen peroxide, chlorine & UV radiation



Geography and Habitat

1. Origin: Unknown
2. Introduced: California
3. Habitat
 - Found in bays and estuaries throughout the world

Invasion Pathways

1. Ballast &/or Fouling
2. Natural spread - water currents
3. Aquaculture and mariculture activities

Non native locations

1. 59- S. California Bight

Sources

1. Molnar, Jennifer, et al. 2008. "Assessing the global threat of invasive species to marine biodiversity." *Frontiers in Ecology and the Environment*. 6 (9), pp. 485-492.
2. <http://conserveonline.org/workspaces/global.invasive.assessment>
3. <http://www.issg.org/database/species/ecology.asp?si=645&fr=1&sts=&lang=EN>
4. http://www.algaebase.org/search/species/detail/?species_id=52337
5. <http://www.marinespecies.org/aphia.php?p=taxdetails&id=109784>